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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,328	04/23/2001	John Zhu	50P4402.01	4086

7590

06/03/2005

John L. Rogitz  
Rogitz & Associates  
750 B Street, Suite 3120  
San Diego, CA 92101

EXAMINER
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LEZAK, ARRIENNE M

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/840,328  
Filing Date: April 23, 2001  
Appellant(s): ZHU ET AL.

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For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 9 March 2005.

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**1. *Real Party in Interest***

A statement identifying the real party in interest is contained within the brief.

**2. *Related Appeals and Interferences***

A statement indicating Applicant is unaware of any related appeals or interferences is contained within the brief.

**3. *Status of Claims***

The statement of the status of the claims contained within the brief is correct.

**4. *Statement of Amendments After Final***

The Appellant's statement of the status of amendments after final rejection contained within the brief is correct.

**5. *Summary of Invention***

The summary of the invention contained within the brief is correct.

**6. *Issues – Grounds of Rejection to Be Reviewed on Appeal***

The Appellant's statement of the issues within the brief is correct.

**7. *Grouping of Claims***

The rejection of Claims 1-33 stand or fall together because Appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See CFR 1.192(c)(7).

**8. *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**9. *Prior Art of Record***

Examiner relied upon the following prior art in the rejection of the claims under appeal:

US 6,522,641 B1    Siu    06-1999 (provisional priority to 06-1998)

**10. *Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-33 are rejected under 35 U.S.C. § 103(a).

The above-noted rejections are set forth in a prior Office Action, mailed on 1 March 2005. The prior Office Action is included herein below:

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over extensive consideration of US Patent US 6,522,641 B1 to Siu.

3. Regarding Amended Claim 1 and Original Claims 2, 6, 7, 12-14, 18, 22-25 & 29 Siu discloses an Internet packet (IP) mobile wireless communication system, method and network (Abstract) comprising:

- at least one network operation center (NOC), including at least one home domain having at least one associated home agent, (Figs. 5-7 and Cols. 5-8);
- plural base stations communicating with the NOC, each base station having at least one router and at least one foreign domain having at least one foreign agent, (Col. 1, lines 52-67; Col. 2, lines 1-4; and Col. 5, lines 37-53); and
- plural client devices in wireless IP communication with at least one base station, (Col. 1, lines 52-67 & Col. 2, lines 1-4), whereby a base station detecting a client device uses its associated foreign agent to communicate at least one access request to the NOC, at least one client device being associated with at least one IP address, the IP address being combined with an identification of the foreign agent of the foreign domain of a base station, the access request including the combined client device IP address/foreign agent identification, (per amended Claim 1), (Col. 6, lines 37-67; & Cols. 7 & 8), (Examiner notes that Siu teaches communication between subscribers on the

- same network as well as subscribers on different networks, (Col. 6, lines 29-36), which communication obviously reads upon the well-known use of client device IP address/foreign agent identification, as further noted within the references listed below but not relied upon);
- sending data to plural base stations and transmitting the data in IP format to at least one client device in wireless communication with at least one base station using a data transfer rate in excess of one megabyte per second, (per pending Claims 22-24), (Col. 5, lines 37-53; Col. 6, lines 37-67; & Cols. 7 & 8);
  - wherein each client device is assigned an IP address and each base station stores accounting data related to network access of a client device through the base station, (per pending Claims 2, 12, 14 & 29), (Col. 5, lines 37-53), (Examiner notes that storage is a common equipment element – especially within Siu wherein the base station submits a request and awaits a response, thereby requiring a memory functionality for correlation purposes);
  - wherein the NOC sends an acknowledgement of an access request to a base station to grant an access request from the base station, (per pending Claims 6, 12 & 18), (Col. 6, lines 37-67 & Cols. 7-8); and
  - wherein mobile, up to the minute subscription services are provided to at least one client device by the NOC through at least one base station, (per pending Claims 7 & 12), (Col. 6, lines 37-67 & Cols. 7-8).

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4. Examiner notes that Siu discloses a subnet controller, (Col. 5, lines 54-63), which controller controls a segment of the network, (Figs. 5 & 6), and which controller contains an interface for connecting to the network management center. Examiner finds that it would have been obvious to one of ordinary skill in the art at the time of invention by Applicant to have the subnet controller located within the network management center wherein network traffic would be minimized, particularly within smaller networks.

Moreover, per Applicant's "network operation center", (NOC), as noted within Applicant's specification, Examiner notes that the functionalities incorporated within the subnet controller serve to recognize and maintain account data for client devices on the network, which functionalities read upon those functionalities essential to Applicant's NOC. Moreover, as Siu teaches an IP network, Examiner finds the use of domain names/IP addresses for identification purposes and domain agents for transportation purposes to be obvious. Thus, Amended Claim 1 and Original Claims 2, 6, 7, 12-14, 18, 22-25 & 29 are found to be unpatentable over considerable consideration of the teachings of Siu.

5. Regarding Claims 3 & 15, Siu discloses an Internet packet (IP) mobile wireless communication system, method and network, wherein the accounting data is sent to the NOC, (subnet controller), for correlation thereof to a client device registered at the NOC, (Col. 5, lines 54-67 & Cols. 6-8). Thus, Claims 3 & 15 are found to be unpatentable over considerable consideration of the teachings of Siu.

6. Regarding Claims 4, 16, 26 & 27, Siu discloses an Internet packet (IP) mobile wireless communication system, method and network, wherein the NOC, (subnet

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controller), grants an access request using the combination of the client IP address and the foreign agent name, (per pending Claims 26 & 27), when the client device associated with the request is registered at the NOC, (subnet controller), (Col. 6, lines 37-67 & Cols. 7-8). Examiner notes that Siu discloses an authentication system, which system renders obvious Applicant's specific access request means, as it would have been obvious to identify the client by its IP address and the base station by its foreign, (domain), name for purposes of authentication and communication generally within the Siu network. Thus, Claims 4, 16, 26 & 27 are found to be unpatentable over considerable consideration of the teachings of Siu.

7. Regarding Claims 5 & 17, Siu discloses an Internet packet (IP) mobile wireless communication system, method and network, wherein the NOC, (subnet controller), stores information relative to each client device registered at the NOC, (Figs. 6-7; Col. 5, lines 54-67 & Cols. 6-8). Thus, Claims 5 & 17 are found to be unpatentable over considerable consideration of the teachings of Siu.

8. Regarding Claims 8 & 19, Siu discloses an Internet packet (IP) mobile wireless communication system, method and network, wherein each router includes information to enable the router to recognize IP packets from foreign agents and home agents, Col. 5, lines 37-67 & Cols. 6-8). Examiner notes that Siu discloses optimized routing for the distribution network, (Figs. 5-7), which routing would obviously include recognition of all agent and related agent information. Thus, Claims 8 & 19 are found to be unpatentable over considerable consideration of the teachings of Siu.



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9. Regarding Claims 9 & 20, Siu discloses an Internet packet (IP) mobile wireless communication system, method and network, wherein the home agent informs foreign agents of types of client devices communicating on the system, (Col. 5, lines 54-67 & Cols. 6-8). Examiner notes that Siu discloses home agent, (subset controller), communication with foreign agent, (base station), which communication would obviously include data concerning device types on the system, as the base station would need such information for efficient network communication and mitigation generally. Thus, Claims 9 & 20 are found to be unpatentable over considerable consideration of the teachings of Siu.

10. Regarding Claims 10, 21 & 30, Siu discloses an Internet packet (IP) mobile wireless communication system, method and network, wherein a location of at least one client device is tracked and subscription services provided thereto based at least partially on the location, (Col. 5, lines 54-67 & Cols. 6-8). Examiner notes that Siu discloses a policy server to determine the rules and boundaries of the tunnel set-up, which rules and boundaries would obviously include a location parameter, as subscriptions defined by location are well-known in the art for billing purposes, (i.e.; long-distance vs. local calling and roaming charges). Thus, Claims 10, 21 & 30 are found to be unpatentable over considerable consideration of the teachings of Siu.

11. Regarding Claim 11, Siu discloses an Internet packet (IP) mobile wireless communication system, method and network, wherein each client device includes a directional antenna and an IP transceiver electrically coupled to the antenna for

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communicating with the base stations, (Col. 3, lines 29-38). Thus, Claim 11 is found to be unpatentable over considerable consideration of the teachings of Siu.

12. Regarding Claim 28, Siu discloses an Internet packet (IP) mobile wireless communication system, method and network, further comprising permitting a first client device to communicate with a second client device via at least one base station, Col. 4, lines 44-67). Thus, Claim 28 is found to be unpatentable over considerable consideration of the teachings of Siu.

## **11. *Response to Arguments***

### **11.1 A. Claims 1-30**

#### **11.1 A.1 Siu '641 in fact discloses "a data rate" per pending Claim 24, (Appeal Brief: p.4)**

Appellant argues that Siu '641 does not disclose, "using a data transfer rate in excess of one megabyte per second", noting that the passage cited in the prior art, (Siu – Col. 5, lines 48-50), is a particular kind of network, not a data rate, further noting that the prior art does not teach that the relied upon network has the claimed data rate, (Appeal Brief, p.5).

The passage cited specifically incorporates the use of a **100BaseT** network interface for IP connections. As noted within "Newton's Telecom Dictionary", Newton, Harry, 18<sup>th</sup> Ed., CMP Books, 2002, p. 286: a "fast Ethernet" or 100BaseT is in the form of an Ethernet hub with an internal bus that runs at 100 Megabytes per second, (Mgpps). In other words, the data, reliant upon the internal bus for its rate of transmission, is able

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to travel at a rate of 100 Mbps on a 100BaseT network. As 100 Mbps is clearly greater than 1 Mbps, Examiner reiterates the fact that Siu '641 teaches "using a data transfer rate in excess of one megabyte per second", as noted in independent Claim 24.

Additionally, this was clearly noted in the remarks section of the Final Office

Action as follows:

Regarding Applicant's argument concerning Siu not enumerating a "data rate", Examiner draws Applicant's attention to the implementation of a 100BaseT network interface specifically noted within Siu, (Col. 5, lines 48-50).

11.1 A. 2 Siu '641 in fact discloses "a foreign agent", (Appeal Brief: p.4)

Appellant argues that Siu'641 does not disclose "a foreign agent at a base station", (Appeal Brief: p.4). Additionally, Appellant goes on to suggest that Appellant's "foreign agent" combines the "specific two entities now set forth in independent Claim 1", (Appeal Brief: p.4).

Examiner respectfully disagrees noting that the "foreign agent" is clearly noted within paragraph 15 of the final office action as follows:

Regarding Applicant's argument concerning the use of foreign agents, Examiner notes that the use of foreign agents and client device IP address/foreign agent identification is well known in the art for facilitating communication throughout multiple networks, as noted herein above relative to Amended Claim 1.

Specifically, Examiner notes that Siu '641 clearly teaches communication throughout multiple networks, (Col. 6, lines 29-48), which communication is well-known in the art to utilize foreign agents for facilitation of the same. Moreover, for mere verification of the well-known use of foreign and home agents, Examiner also provided

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Appellant with the Okanoue ('758) and Inoue ('616) patents. In response to Applicant's argument that the Okanoue ('758) and Inoue ('616) patents are not relevant to the rejection, Examiner disagrees noting MPEP 2144.03(d), which reads as follows:

If the examiner adds a reference in the next Office action after applicant's rebuttal, and the newly added reference is added only as directly corresponding evidence to support the prior common knowledge finding, and it does not result in a new issue or constitute a new ground of rejection, the Office action may be made final. If no amendments are made to the claims, the examiner must not rely on any other teachings in the reference if the rejection is made final. If the newly cited reference is added for reasons other than to support the prior common knowledge statement and a new ground of rejection is introduced by the examiner that is not necessitated by applicant's amendment of the claims, the rejection may not be made final. See MPEP § 706.07(a).

Additionally, Examiner notes that both Okanoue ('758) and Inoue ('616) clearly teach the well-known method of external/third-party network identification through a combined IP address/foreign agent, (Okanoue – Fig. 1; Col. 4, lines 1-49), (Inoue – Fig. 3 & Col. 7, lines 18-55), which well-known method would have been used in Siu '641 for communication with third party networks, (Col. 6, lines 29-36). Moreover, per Appellant's argument that the Examiner has not shown the combination of "two specific entities", (Appeal Brief, p. 4), Examiner is not completely clear as to which "two entities" Appellant is specifically referring. Noting the language in Claim 1, Examiner will assume Appellant means the "two entities" comprise the client device IP address and the foreign agent identification, the combination of which, as noted herein above, is well-known in the art, and as such is not patentably distinct.

11.1 A. 3      Siu '641 in fact discloses base stations capable of an accounting functionality, (Appeal Brief: p.5)

Appellant argues that the base stations “have nothing to do with accounting data”, (Appeal Brief, p.5), and Examiner respectfully disagrees, as noted within the final office action, paragraph 16 as follows:

Regarding Applicant’s argument that the base station is incapable of storing “at least some accounting data”, Applicant is reminded that the Examiner is to interpret the claims in their broadest meaning. In this case, Examiner finds that the base station inherently maintains data used for accounting purposes in that the base station is relied upon for transmission and receipt of data, which data inherently is accounted for as it moves throughout the network, and which data would obviously be monitored in some way as it passed through the base station to a destination such as the client or the NOC. Moreover, as noted herein, Examiner finds that as the claims are so broadly written, one interpretation of the same would be to find the subnet controller in essence acts as an NOC, (Fig. 7; Col. 5, lines 64-67; & Col. 6, lines 1-28), particularly in light of the functionalities that Applicant has attributed to the NOC, which functionalities include client registration and the accounting/correlating of client data, (Fig. 7). Additionally, Examiner notes that Siu also discloses a Network Management Center, (Fig. 7), which Network Management Center could also obviously be interpreted to read upon Applicant’s claims in a broader sense of the invention. Finally, Examiner would like to clarify that “considerable consideration” is to be understood as “extensive consideration” of the same.

Additionally, Examiner finds that Siu '641 may be interpreted to read on Appellant’s Claim 12, as written, in two different ways. Examiner’s first interpretation finds each subnet controller acting as a Network Operations Center (NOC), wherein the subnet controller, clearly controlling a segment of the network, (Fig. 6 & Col. 5, lines 54-63), grants access authorization to it’s respective base stations, (Fig. 7), and wherein the base stations are linked to billing, (Fig. 3). Further, Examiner notes, as the base stations are linked to billing, it would have been obvious to incorporate the billing functionality into the base station for convenience of accessibility to the same.

Examiner's alternate interpretation of Appellant's excessively broad claim language is to note that Siu '641 teaches multiple subnet controllers/base stations with accounting capabilities, connected to a network management center, (NOC), (Fig. 7), wherein it would have been obvious for the NOC to control access via the link interface, (Col. 6, lines 29-48), which link interface could obviously be located within the NOC for convenience of accessibility to the same. Thus, Examiner has shown two possible interpretations within Siu '641, wherein accounting data may be seen to be stored on a "base station".

Finally, In light of Examiner's interpretations, as noted herein above, Examiner maintains that wherein the subnet controller acts as the NOC, the accounting data is clearly and obviously sent to the subnet controller/NOC for correlation thereof, (Fig. 7 & Col. 6, lines 11-13), per Claims 3 & 15.

#### 11.1 B. Other Issues Not Relevant to BPAI Review

##### 11.1 B. 1 Examiner raises no new grounds of rejection within the Examiner's Answer, (Appeal Brief: p.4)

This issue is not relevant as no new grounds of rejection have been made of record within this Examiner's Answer.

##### 11.1 B. 2 Examiner's supervisor has paid sufficient attention to the examination of Appellant's application, (Appeal Brief: p.4)

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This issue is not relevant as an Examiner's Answer has been submitted to the BPAI and prosecution in this matter has not been reopened. Examiner would like to additionally note that had prosecution been reopened, the same would also not be a relevant issue for review by the board.

For the above reasons, it is believed that the rejections should be sustained.


Respectfully submitted,


Arrienne M. Lezak

Conferees

David A. Wiley, Jack Harvey,

William Vaughn, Bunjob Jaroenchonwanit

  
RUPAL DHARIA  
SUPERVISORY PATENT EXAMINER

  
DAVID WILEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100